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In re application of) Examiner Janelle Combs Morillo
Venema et al) Group Art Unit 1742
Serial No. 10/706,846) Atty. Docket # 4430-031234 (03-1257)
Confirmation No. 6084)
Filed 11/12/2003	December 21, 2005
For METHOD OF MANUFACTURING A NEAR-NET SHAPE ALLOY PRODUCT)))

Rule 1.131 Declaration

I, Jeffrey J. Witters, an employee of ALCOA, declare and state:

- (1) The invention described in the above referenced patent application was invented by myself and other ALCOA personnel prior to February 13, 2003.
- (2) United States Patent Application 2004/0182483 by Heymes et al, was cited against the present application in an Office Action dated August 25, 2005.
- (3) The priority date for the Heymes application is based on the United States Provisional Patent Application having serial number 60/446,993 filed on February 13, 2003.

- (4) I have reviewed a proposal dated January 7, 2003 that to the best of my knowledge, information and belief was sent by ALCOA to the Puget Sound Wing Group at Boeing Aircraft Corporation on or before January 9, 2003.
- (5) The proposal to the Puget Sound Wing Group at Boeing Aircraft Corporation is a rough order of magnitude quotation for a machined panel and is identified as confidential information.
- (6) One line in the proposal states: "Plate produced in F-temper prior to machining. Machined panel brought to DVPT for SHT+Q+STR+AGE to T7651".
- (7) The following definitions in the line quoted above in Paragraph (6) are understood by ALCOA and Boeing personnel interacting on the proposal:

DVPT refers to the ALCOA plant at Davenport, Ohio.

SHT means to solution heat treat.

Q means to quench.

STR means to stretch

AGE refers to artificial ageing

17651 is a specific temper

(8) ALCOA and Boeing personnel understood that the alloy was the Aluminum Association 7085 alloy. (Previous communication between ALCOA and Boeing had established that the code LW-P3, which appears in the proposal, referred to AA 7085.)

- (9) The steps set forth in the quoted section in Paragraph 6 above read directly on Claims 1-8 of the subject application, provided that it is understood that the plate was obtained from an ingot by rolling.
- (10) It is my belief that both Boeing personnel and Alcoa personnel understood that the plate would be obtained from an ingot by rolling.
- (11) I have reviewed an E-mail dated which, to the best of my knowledge, information and belief, was sent by Michael B. Giuffre (Boeing) to Dan Goodyear (ALCOA) on February 6, 2003. The E-mail indicates that Boeing received the ALCOA quotation, reviewed it and responded prior to February 13, 2003. The E-mail includes six pages of dimensioned sketches that, to the best of my knowledge, information and belief, are proprietary to Boeing.

Declarant further declares and states that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under §1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Respectfully submitted,

Date

2005 DEC 21

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Alcoa Rough Order of Magnitude (ROM) Quotation Boeing Yellowstone - 777 Lower Wing

				Panel								Potential		
Oplica		, Produci	Panel No. Product Allow-Tempo	Configuration	Width	Clenal	No. Stilleners	No. Stilleners X D.mens.on Panel Weigh	Parel Weight		똢	Price	Plece Price	Price per 59
				(see allachments)	(m) (sn)	(ii)		(E)	色		(L,M,H)	(\$/IP)	(3)	S.
Option	1b: Plate pr	oduced In 1	F-temper prlo	r to machining. I	Nachined Pan	el brough	1 to DVPT for 1	SHT+O+STR+	4GE to 17651.					
.	·	P'xle	LW-P3	a	۲	1122	5	2.85	14,712		Σ	\$6.00	588,269	
#	Q	Piale	LW-P3	1b 2 Plate LW-P3 · B 72 1159 10 3.35 15,304	22	1159	2	3.35	15,304		7	\$5.78	\$88,458	
12	6	Piale	· LW-P3	2	7	865	=	2.85	11,342		æ	\$7.13	S80.867	
										Totals =>	N		\$257,594	\$515,188
Option	2a: Exirusic	ons produc	Option 2a: Extrusions produced @ LAF only	ž										
2a	_	Extrusion	Extrusion LIM-E3	€.	25	263	63	3.85	905		_	\$7.25	\$6,564	
23	cı	Exfrusion	. CW-E3	⋖	%	689	9	3.85	2,328		_	\$7.25	S16,878	
28	6	Extrusion	Extrusion LW-E3	.	8	1128	4	3.35	4,863		_	\$6.75	532,860	
2a	4	Extrusion	LW-E3	€.	8	1142	*	3.35	4,929		_	\$6.75	\$33,268	
22	u)	Extreston	Extruston . L.W-E3	∢	8	1118	4	3.35	4,816		_	\$5.75	532,510	
29	9	Exinasion	LW-E3	.₩	56	688	G	4.85	3,177		ب	\$7.25	523,036	
2a	~	Extrusion.	Extrusion "LW-E3".	₹ ,	22	663	60	4.35	2,413		د	\$7.00	\$16,888	
2a	•	Extrusion	Extrusion LW-E3	₩.	53	511	0	4.35	1,779		ı	\$7.00	\$12,453	
1		;	:							Totals 🖘	ے		\$174,455	\$348,910

and rough product comparisons as part of the reciprents planning activities. Alcoa makas not representations or warranties concerning the suitability tor any use or the availability of the Alcoa alloy products. These estimates are subject to changes the design and alloy development are better estebilished. and purchase of such products. The estimated pulcos are provided to the recipient by Aloxa solety for the purposes of facilitating trade study estimates 1) The estimated prices provided above are not part of an existing contract between Alcoa and the recipient for the sale of Alcoa alloy products. The provision of these estimates to the recipient does not constitute an offer by Alooa to sell the Alcoa alloy products to recipient, not will any attempt by recipient to accept such estimates for the specified Alcoa alloy Products create a contractual relationship between Alcoa and the recipient for the sale Pocential Price (\$ALb)* dependent upon authering desired future cost reductions and volume/ahare objectives.
 Special Tosting, Excess Transpondulen and Parkaging not Included.
 All Pricing is RCM (Flough Order of Magnillude).
 All Pricing Assumes 2003 Deliveries.
 Estimates are valid for 30 days from 2003 JAN 07

Akoa Progressy Background Information (Level 5)

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Alcoa Rough Order of Magnitude (ROM) Quotation Boeing Yellowstone - 777 Upper Wing

				Pane1				,				Potential		
Cption	Panel No.	Product	Panel No. Product Alloy-Temper	Config.	Width	Length	engili No. Silleners	1 X Simenslon	X Simension Panel Weight		H _S k	Price	Plece Price	Price per SS
					(i.)	(iii)		(uj)	(q)		(L,14,H)	(q _{1/} \$)	<u>(s)</u>	(3)
Option ;	i: Plate produ	uced in F-t	Option 1: Plate produced in F-temper prior to	Hach.	ning. Machin	ed Panel	brought to D	VPT for SHT+C	1+STH+AGE to	T7761.				
_	-	- Ptalo	7055-17751	В		1122	<u>۔</u>	2.85	14,712		Ξ	5.98	\$87,975	
-	8	Plate	7055-17751	6	72	1159	₽	3.35	1159 10 3.35 15,304		≥	5,58	\$85,397	
-	ო	Plate.	705S-T7751	8		865	5	2.85	11,342		≊	6.47	\$73,381	
										Totals =>	Ξ		\$246,754	\$493,507
Option	2a: Extrusion	s produce	Oplion 2a; Extrusions produced @ LAF only.											
23	_	Extrusion	Extrusion: 7055-T77511		74	268	c	3.85	905		د	\$7,25	\$5,564	
23	8	Extrusion	Extrusion - 7055-T77511		24	680	en	3.85	2,328			\$7,25	\$16,876	
2a	69	Extrusion	Extrusion 7055-T77511	4	8	1128	, *	3,35	4,86B		_	56.75	\$32,860	
28	ч	Extrusion	Extrusion 7055-T77511		e	1142	•	3.35	4,929		_	\$6.75	\$33,268	
23	2	Extrusion	Extrusion 7055-177511		g	1116	4	3.35	4,818		ب	\$6.75	\$32,510	
23	9	Extrusion	Extrusion 7055-177511		92	889	c	4.85	3,177	•	_	\$7.25	\$23,036	
23	~	Extrusion	Extrusion 7055-T77511		ង	693	es	4.35	2,413		ب	\$7.00	\$16,888	
2a	æ	Extrusion	Extrusion 7055-T77511-		:23	511	65	4.35	1,779		_ 1	37.00	\$12,453	
		:								Totals =>			5174,455	\$348,910

any use or the availability of the Alcoa alloy products. These estimates are subject to changes the design and alloy development are ballar established.

2) Potential Price (SLLb) dependent upon acritering desired future cost reductions and volume/share objectives.

3) Spacial Tosaing, Excess Transportation and Packaging not included.

4) At Pricing is ROM (Rough Order of Magnitude).

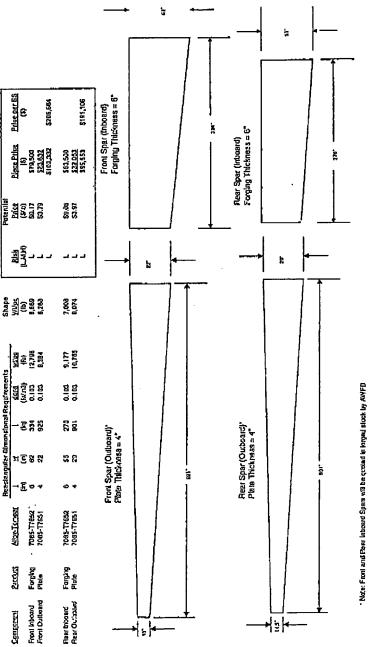
5) At Pricing is ROM (Rough Order of Magnitude).

5) At Pricing as we wait for 30 Gays from 2000 JAN 07 and rough product comparisons as part of the reciplents planning activities. Alcoa makes not representations or warranties concerning the sultability for and purchase of such products. The estimated prices are provided to the recipter by Akoa solely for the purposes of facilitating trade situdy estimates The estimated prices provided above are not part of an existing contract between Alcoa and the recipient for the sale of Alcoa alloy products. The recipient to accept such estimates for the specified Alcoa alloy Products create a contractval refationship between Alcoa and the rediplentfor the sale provision of these estimates to the recipient does not constitute an offer by Alcoa to sell the Alcoa alloy products to recipient, not will any attempt by

Alcoa Proprietary Background Information (Level 5)

Filed: November 12, 2003 USSN 10/706,846 Venema, et al.

Boeing Yellowstone - 777 Wing Spar Alcoa Rough Order of Magnitude (ROM) Quotation

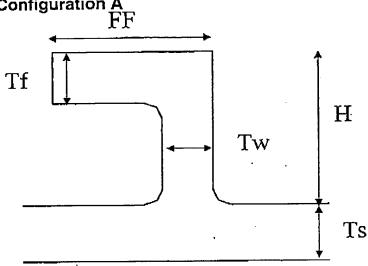


i) The estimate provided stone are not part of an exhibit control telement Acoa and he rected the safe of Acoa alloypur. One period of allowers to the recipient does not constitute an other by Aloas to sellbe Acoa alloy products to recipient, our will any Chorist to period of a recipient, our will any Chorist to period of a recipient Acoa and the recording to the special of Acoa alloy Products can't end an extensible between Acoa and the recording to an about and purchase of a such products. The stimuled pitters are provided to recipients between Acoa soft plot the purpose of the List of recipients and rough product are acoustic to the second part of the second part of the second and a such and a such a such a such an expensive the any second acoustic plant and a such a such a such a such as a such an expensive the anniething of the Acoa stop products. These estimates one expensive the service high or beautiful to the anniething of the Acoa stop products. These estimates one expensive the service any use of the anniething of the acoustic and acoustic and acoustic and acoustic anniething of the anniething of the

Area Propilatiny Backgreund Normel on (Lovel 5)

Venema, et al. USSN 10/706,846 Filed: November 12, 2003

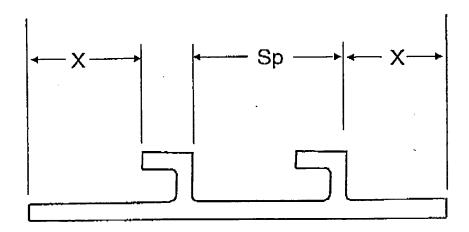
Boeing Yellowstone - 777 Lower Wing Cover LW-E3 Plank Configuration A FF



	Sp	Ts	Tw	Tf	FF	Н
Extrusion	7.00	0.95	0.75	0.90	2.30	2.60

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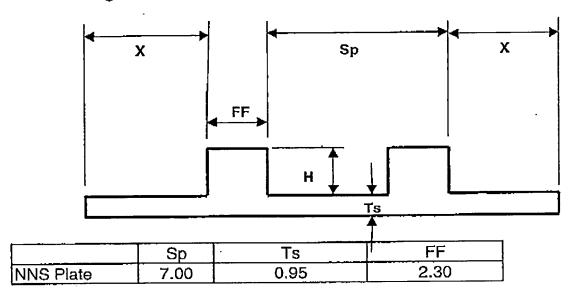
Venema, ct al. USSN 10/706,846 Filed: November 12, 2003



Venema, et al. USSN 10/706,846

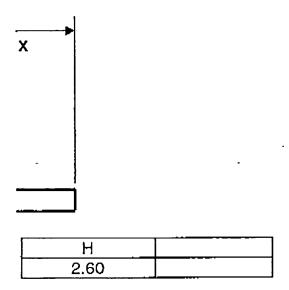
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Boeing Yellowstone - 777 Lower Wing Cover LW-E3 Plank Configuration B



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Venema, ct al. USSN 10/706,846 Filed: November 12, 2003



PAGE 22/24 * RCVD AT 6/30/2006 11:49:17 AM [Eastern Daylight Time] * SVR:USPTO-EFXRF-1/9 * DNIS:2738300 * CSID:17243375959 * DURATION (mm-ss):05-52

Venema, et al. USSN 10/706,846 Filed: November 12, 2003

Boeing Yellowstone - 777 Lower Wing Appendix 1 - Alternate Configurations

	Banal Na		48	Continuestion	widia	Langth	No Silleners	X (limething	Prine Weight	7	月(35	Potential Price	Place Price	Price per 55
Onton	FORETGO	Product	ENGA- I CHILDRE	(see attachments)		(ID)		(Lri)	(80)	•	(LWJH)	(SAD)	(A)	(2)
				fedt (time errete)	0.14	17		1-7	1-7					
Option	tu; Pjale pro	duced in t	7G51 temper p	rior to mechining.								\$6,23	545,525	
1.A	1	Pialo	LW-P3	В	53.5	767	7	4.G	7.523		Ļ	S7 11	577,391	
12	2	Ptato	LW-P3	8	53 5	1140	7	48	10,885		Ļ	57.12	575,412	
15	3	Piale	LW-P3	ā	53.5	1124	7	4.B	10,732		·		544 049	
1a	4	Plate	LW-P2	ß	50.5	714	7	4.6	6.617		<u> </u>	∑0.53		\$407.7EG
•										Totals es			S243.877	84011100
Option	Zb: Extrusio											56.50	\$13,401	
20	1	Exition		Į A	92	457	4	4.05	2.062		M		851.B12	
2b	2	Extrusion		³ A	47	1124	5	5.35	8,449		H	60.50		
25	3	Extricion	LW E3	· A	41	1143	5	5.35	G,558		н	55.50	545,730	
2b	4	Extrusion	LW-E3	΄A	3 3	1066	4	4.85	4,917		M	36.75	533,191	
20	5	Expusion	r)w.β⊒	A	33	817	4	4.85	3,762		M	56.75	\$25,300	
2D	Ř	Extrusion	`r₩:€3'' ''	`^	35	598	5	2.35	8,080		М	55.50	EZQ.QJA	
	-			• • •		_				Yntala a>	н		5202,552	\$405,103
Oplion	23: Plate-Cx	trusion Co	mbonstlan. Al	reclangular plate	producod	i in 17651	temper prior to	machining.						
32		Cathialan	LW-Ea	2 ▲	26	355	•	4.85	1.269		L	57.25	59,199	
30	,	Plate	LW-P3	'B	54	112G	7	4.85	10,009		L	57.11	576.053	
	-	Five	LW-P3	Ř	54	1152	;	4 85	11,059		L	57.11	370.020	
da	3	Plate	LW-P3	Ä	Si	923	ż	4.85	8.860		L	\$5.97	\$52,807	
32	- ;	Faterbists	LW-EX		2G	511	ģ	4 85	1,825		Ē	\$7.25	513,241,	
Sa	2	Extrastit	" rail ten" " " "	٠^	20		•	- **	-,—-	Totals so	Ē.		5230.817	8461,635
Mada-	4L. Diak E.	turios Co	outomation Al	rectanglaur plate	Produces	In Filem	per orter to man	thining.						
Machin	ad Panel br	numbile Di	PT for SHT+C	STRAGE to 176	51.									
20	3	Exhibion		Ä	35	479	5	2.55	2,467		м	S8.75	\$18,651	
36	,	Plans	LW-P3 "	·B	72	1139	10	3.35	TS.040		М-	\$\$.7B	120,382	
30	i		LW-P3		72	1139	10	3.25	15.040		M	S5.78	886,931	
36	7		LW Ea		35	574	5	2.3G	2.956		M	56.73	619.954	
-	-			-			_			Totals =>	M		5210.468	\$420,93G

Alcox Proprietary Background Information (Level 5)

Notice:

1) The estimated prices provided above are not part of an adalting contract between Alcos and the recipient for the Sate of Alcos stoy products. This provision of these estimates to the recipient does not constitute an offer by Alcos it sell the Alcos alloy products to recipient, nor will any alternot by recordent to occupie such estimates by the specified Alcos alloy Products group a contractual relationship between Alcos and the recipient for the such and recipient products. The estimated prices are provided to the recipient by Alcos soldy for the purposes of (pollipsing yeak) shirtly estimates and recipient product compositions as part of the recipients planning activities. Alcos makes not represent one whether accounting the availability for any use to it is availability to the Alcos alloy products. They geterrance are subject to changes the design and alloy development are better established.

2) "Newfall finds (Alb)" despendent would allow the cost reductions and volume/share objectives.

3) All Pricing is Row (Flough Circle of Mary hadrs).

4) All Pricing is Row (Flough Circle of Mary hadrs).

3) All Pricing is Row (Flough Circle of Mary hadrs).

5) Estimates are valid for 70 days Irwe 2003 JAN 67

Filed: November 12, 2003 USSN 10/706,846 Venema, et al.

Appendix 2 - Alternale Configurations Boeing Yellowstone - 777 Upper Wing

	;	_				200	i			į	Potential	0 000E	an son och a
Panel No. Product Alloy-Temper Config. Width	Alloy-Temper				Lengh.	No. Stiffeners	ength No. Stiffeners X Dimension Panel Wei	Panel Weight		Kisk Series	2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Piece Price	Price per 33
(m)	(u)	<u>E</u> ,	<u>E</u>		€		Ē	<u>e</u>		(ר"מ"ט)	fairel	<u>.</u>	2
Option 2b: Extrusions produced @ LAF and Russla	nd @ LAF and Russla	ussla										,	
¥	¥	¥	걿		45 7	7	4.35	2,062		Ź	\$6,50	\$13,401	
4	4	4	₹		1124	co.	6.35	6,449		I	\$8.50	\$54,812	
Extrusion -7055-T77511 A 41	4	4	7	_	143	យ	5.35	6,558		Ŧ.	\$8.50	\$55,739	
¥ 83	¥ 83	¥ 83	•	-	693	খ	4,85	4,917		E	\$6.75	533, 191	
A 33	A 33	A 33		Ø	17	4	4.85	3,762		₹	\$6.75	\$25,390	
. A .35	. A .35			u s	55	r3	2,35	3,080		Ŋ	<u>\$6.50</u>	\$20,018	
								•	Totals =>	Ŧ		\$202,552	\$405,103
Option 3: Plate-Extrusion Combonation. All rectangular plate produced in Fremper prior to machining.	bonation. All rectangular plate produced	ctangular plate produced	slate produced	1CBQ	ii.	-temper prior	r to machining.						
Machined Panel brought to DVPT for SHT+Q+STR+AGE to 17751	_	SHT+Q+STR+AGE to 177	TR+AGE to T77	Ĕ	<u>.</u>								
A 35	A 35	A 35		4	Ð	ស	2.35	2,467		Ξ	\$6.75	\$16,65	
72	B 72	B 72		-	1139	2	3,35	15,040		Σ	\$5.58	\$83,923	
B 72	B 72	B 72		÷	621	2	3,35	15,040		Σ	\$5.58	\$83,923	
, A 35	A 35	35		'n	7	מו	2.35	2,956		Ξ	\$6.75	\$18,954	
									Totals 🖦	Σ		\$204,452	\$408,904

provision of these estimates to the recipient does not constitute an other by Alcoa to self the Alcoa alloy products to recipiant, nor will say attempt by recipient to accept such estimates for the specified Alcoa alloy Products create a contractual relationship between Alcoa and the recipient or the safe and purchase of such products. The estimated provided to the recipient by Alcoa solery for the purposes of facilitating trade sludy estimates and rough product comparisons as part of the recipients planning activities. Alcoa makes not representations or warranties concerning the suitability for any use or the availability of the Alcoa alloy products. These estimates are subject to changes the design and alloy development are belief established. The sstimated prices provided above are not part of an existing contract between Alcoa and the recipient for the sale of Alcoa alloy products. The

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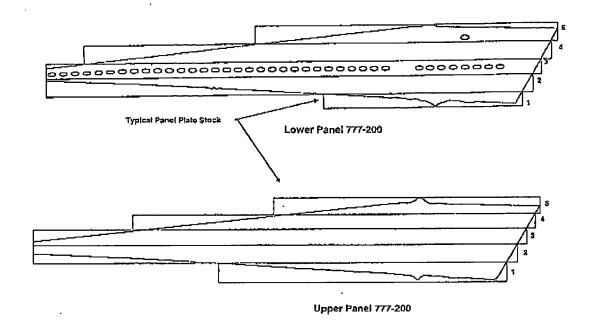
Special Testing, Excess Transportation acc Packaging not Included.

⁴⁾ All Pricing is ROM (Rough Order of Magnitude).
5) All Pricing Assumes 2003 Deliveties.
6] Esilmates are valid for 30 deys from 2003 JAN 07

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Skin Panel Raw Material Study 777-200 (por wing) Venema, et al. USSN 10/706,846 Filed: November 12, 2003

Boeing 777 Upper and Lower Wing Skin (Plan View) Example of panel numbering convention



Skins - Raw Slock Welghls (rov A)

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